

US Serial No. 10/560076
Page 2 of 17

RECEIVED
CENTRAL FAX CENTER
NOV 16 2009

In the Claims:

1.(currently amended) A portable automatic dishwasher detergent dispensing device comprising a body enclosing a detergent or detergent additive, sufficient for a plurality of wash cycles, the body having an inlet aperture located at an end of the body to allow wash liquor to contact the detergent and an outlet aperture located at the end of the body to allow detergent loaded wash liquor to exit the body and closing means to close the one or both of the apertures at or before a start of a rinse cycle of a dishwasher, wherein the closing means is located within the body enclosing the detergent or detergent additive.

2.(currently amended) A portable automatic dishwasher detergent dispensing device comprising a body enclosing a detergent or detergent additive, sufficient for a plurality of wash cycles, the body having a first end, a second end located opposite to the first end, and an outlet aperture located at the first end of the body to allow the detergent to exit the body, and closing means to close the outlet aperture at or before a start of a rinse cycle of a dishwasher, wherein the closing means comprises a thermal activator located at the second end of the body and exterior with respect to the body enclosing the detergent or detergent additive, wherein the body is interposed between the thermal activator and the outlet aperture.

3.(previously presented) A device according to claim 1, wherein the closing means reacts to a change in one or more conditions of the dishwasher during a dishwasher washing cycle.

4.(original) A device according to claim 3, wherein the closing means reacts to a change in temperature during the dishwasher washing cycle.

- 5.(currently amended) A device according to claim 4, wherein the closing means comprises a thermal activator selected from a thermal bimetal strip, a thermal bimetal snap element, a wax activator or a shape memory alloy.
- 6.(previously presented) A device according to claim 4, wherein the closing means is a thermal bimetal snap element and moves a plug between a position in which at least one of the inlet or outlet apertures is closed to a position in which at least one of the inlet or outlet apertures is open.
- 7.(previously presented) A device according to claim 4, wherein the closing means is a thermal bimetal snap element and has a higher snap temperature of between 30 to 50°C.
- 8.(previously presented) A device according to claim 4, wherein the closing means is a thermal bimetal snap element and has a lower snap temperature of about 20 to 35°C.
- 9.(previously presented) A device according to claim 4, wherein the closing means is a thermal bimetal snap element and in the form of a strip.
- 10.(previously presented) A device according to claim 9, wherein a first portion of the thermal bimetal snap element is attached to or liases with the device and a second potion of the thermal bimetal snap element is attached to or liases with a plug.
- 11.(previously presented) A device according to claim 4, wherein the closing means is thermal bimetal snap element and in the form of a pre-existing three dimensional shape or an inversion of the pre-existing three dimensional shape.
- 12.(previously presented) A device according to claim 11, wherein the thermal bimetal snap element is retained in the device such that one or more peripheries of

the thermal bimetal snap element interacts with a plug and the device and moves the plug with respect to the device.

13.(previously presented) A device according to claim 12, wherein the thermal bimetal snap element is mounted on a plate in the device via a mounting means.

14.(original) A device according to claim 13, wherein the mounting means includes a rod extending from the plug which intersects the thermal bimetal snap element.

15.(previously presented) A device according to claim 14, wherein the rod has a terminal flange to retain the thermal bimetal snap element or interact therewith.

16.(previously presented) A device according to claim 1, wherein the closing means comprises a plurality of thermal bimetals.

17.(previously presented) A device according to claim 16, wherein the device comprises a primary thermal bimetal which affects interaction of a plug with the inlet or outlet aperture and a secondary thermal bimetal which affects operation of the primary thermal bimetal.

18.(original) A device according to claim 17, wherein the primary thermal bimetal is a conventional thermal bimetal having an activation temperature of about 40°C.

19.(previously presented) A device according to claim 17, wherein the secondary thermal bimetal comprises a thermal bimetallic snap element having a higher snap temperature of about 40°C and a lower snap temperature of about 25°C.

20.(previously presented) A device according to claim 1, wherein the closing means reacts to water or humidity present in the dishwasher.

- 21.(previously presented) A device according to claim 20, wherein the closing means swells upon contact with water or humidity causing the one or both of the inlet or outlet apertures to close.
- 22.(previously presented) A device according to claim 1, wherein the device comprises an auxiliary chamber disposed adjacent the body of the device external to the inlet or outlet apertures.
- 23.(previously presented) A device according to claim 22, wherein the auxiliary chamber comprises auxiliary chamber closure means associated with an access opening.
- 24.(previously presented) A device according to claim 23, wherein the auxiliary chamber closure means comprises a thermal bimetal.
- 25.(previously presented) A device according to claim 22, wherein the device is adapted for dispensing a liquid and/or powder detergent formulation.
- 26.(currently amended) A device according to claim 25, wherein the auxiliary chamber closure means operates in synchronisation with the closing means ~~closure means of the outlet aperture~~ of the body.
- 27.(previously presented) A device according to claim 26, wherein a linkage is disposed between the auxiliary chamber closure means and the closing means of the body.
- 28.(previously presented) A device according to claim 27, wherein the device comprises a second linkage accessible by a user from an exterior of the device.

- 29.(previously presented) A device according to claim 1, wherein the device comprises control means to control an amount of wash liquor which enters the inlet aperture.
- 30.(previously presented) A device according to claim 29, wherein the control means comprises a collecting funnel.
- 31.(previously presented) A device according to claim 30, wherein the collecting funnel has a drainage opening in a its collecting portion of the collecting funnel.
- 32.(previously presented) A device according to claim 1, wherein the body comprises a water-resistant or water insoluble material.
- 33.(previously presented) A device according to claim 32, wherein the body comprises a channel in communication with the inlet aperture.
- 34.(previously presented) A device according to claim 33, wherein the channel has a detergent bar disposed therein with the detergent bar completely filling at least a portion of the channel across an entire bore thereof.
- 35.(previously presented) A device according to claim 34, wherein the channel has a uniform bore, in terms of a cross sectional area of the uniform bore, along its length or at least along the portion filled by the detergent bar.
- 36.(previously presented) A device according to claim 35, wherein the channel is a tube.
- 37.(currently amended) A portable automatic dishwasher detergent additive dispensing device comprising a body enclosing a detergent additive, sufficient for a plurality of wash cycles, the body having an inlet aperture located at an end of

the body to allow wash liquor to contact the detergent and an outlet aperture located at the end of the body to allow detergent loaded wash liquor to exit the body and opening means to open one or both of the apertures at or after a start of a rinse cycle of the dishwasher, wherein the opening means is located within the body enclosing the detergent additive.

38.(previously presented) A device according to claim 37, wherein the detergent additive is an anti-spotting composition or a glass corrosion prevention composition.

39.(withdrawn) A method for dispensing detergent or detergent additive into an automatic washing machine over a plurality of washing cycles, the method comprising the steps of:

providing an automatic washing machine detergent dispensing device according to claim 1;

contacting wash liquor of the automatic washing machine with the detergent or detergent additive of the automatic washing machine detergent dispensing device; and

dispensing detergent loaded wash liquor from the automatic washing machine detergent dispensing device into the automatic washing machine.

40.(canceled)